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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/049,995	02/20/2002	Jun Saito	1422-0519P	4521

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EXAMINER
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BOYER, CHARLES I

ART UNIT	PAPER NUMBER
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1751

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	03/23/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 03/23/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

## Office Action Summary

Application No.

10/049,995

Applicant(s)

SAITO ET AL.

Examiner

Charles I. Boyer

Art Unit

1751

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7, 9-13 and 15-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-13, and 15-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

This action is responsive to applicants' amendment and response received December 18, 2006. Claims 1-7, 9-13, and 15-19 are currently pending.

#### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim is confusing because the claim requires that step (A), neutralizing the liquid acid precursor, is carried out prior to the formation of coarse grains, yet step (B) can only be performed after coarse grains have been formed in step (A). So step A requires neutralizing without coarse grains, but also requires that coarse grains are formed as a result of the neutralization process. These two requirements appear to be contradictory. Even if there exists some perfect moment during the process when neutralization has occurred, but coarse grains have yet to form, absent specific amounts of inorganic substance added, or some other parameter by which this perfect moment can be identified, it presents an impossible task for the examiner to identify where this perfect moment may lie and search the claim accordingly.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7, 9-13, and 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nitta et al, EP 936,269.

Nitta et al teach a process for preparing high density detergent compositions (see abstract). An example of such a process adds sodium carbonate and sodium tripolyphosphate to a mixer, followed by alkylbenzene sulfonic acid such that the LAS is fully neutralized (note the absence of any aluminosilicate in this neutralization). Though not explicitly stated by the reference, the examiner maintains that as all of the components presently claimed are present in this example, and the process of this example has reached the same point as that claimed, that is, a neutralized liquid acid precursor, it is reasonable to assume that coarse grains have begun to form. To restate, if coarse grains have formed for applicants' composition in present claim 1, and all components and process steps in the reference are identical, they must be forming in the composition of the reference as well. At this point, an aqueous solution of acrylic acid-maleic acid copolymer (meets the liquid binder limitation of the claims) and 4.2% zeolite with a particle size of 4 microns is added to the neutralization mixture, yielding a final composition of free-flowing granules with a bulk density of 760 g/L, wherein the composition comprises 12% zeolite (page 13, example 1 and page 19, table 1). Note

Art Unit: 1751

that this process includes blowing a gas during the neutralization step (see page 23, table 5). Further note that substances generally employed in detergent compositions, such as aluminosilicates, may be added after the neutralization step and prior to the step of adding liquid components (page 8, paragraph 62). In this scenario, an aluminosilicate would be added after the neutralization, followed by binder, then followed by additional aluminosilicate, which is precisely what is presently claimed. To further support this scenario, recall that the final composition of the example above contains 12% zeolite. As only 4.2% zeolite is accounted for in the process description, additional zeolite must have been added at some point, and the scenario set forth above is certainly a plausible, if not a likely pathway.

A person of ordinary skill in the art then, based on the teachings of the reference, would find it obvious to prepare a granular detergent by the scenario set forth above and so render obvious the claim limitations at hand.

Applicants have traversed this rejection previously and in a personal interview on the grounds that their precise order of addition of components is critical to achieving a controlled particle size in the inventive methods and thereby arriving at a high-bulk density detergent composition having a bulk density of 650 g/L or more. The examiner fully understands and respects this argument, however, as stated previously and in a personal interview, maintains the reference provides ample teaching to add amounts of powder and binder as needed to arrive at a detergent granule having a bulk density of 760 g/L according to the example. And more broadly, the examiner maintains that adding components to a mixer as needed, that is, some powder followed by binder, and

perhaps more powder or binder according to the needs of the formulator, rather than being a novel and therefore patentable process, is in fact commonly used and obvious to persons of ordinary skill in the art. One can readily imagine the formulator in the laboratory, wishing to make a high bulk density granule, trying various combinations of powder and binder to achieve a desired consistency. Such routine experimentation will doubtless include many separate additions of powder and binder to optimize the ingredients in order to achieve a granule with the desired properties. Should each addition of powder or binder be considered an inventive step and be given patentable weight? The examiner has no doubt that applicants have succeeded in making a superior detergent granule, but disagrees that the process of making that granule meets the test for being unobvious over the prior art.

3. Claims 1-7, 9-13, and 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mort III et al, US 6,794,354.

Mort et al teach a continuous process for making a detergent composition (see abstract). This process begins with a zeolite-free neutralization step in a first mixer containing a liquid acid precursor and sodium carbonate as an alkaline inorganic material, followed by an intermediate step where optional liquid or particulate materials may be added, such as a zeolite free-flow aid. The "second" agglomeration step adds a liquid binder to the free-flowing powder obtained from the previous steps (col. 6, line 25-col. 7, line 35) and as much as 10% additional detergent ingredients, such as aluminosilicates, which may be added as additional builders or coating agents, may be

Art Unit: 1751

added in the second step (col. 13, lines 27-39). An example of such a process results in detergent agglomerates having a bulk density of 680 g/L and a particle size of 550 microns (col. 15, example 1).

Based on this teaching, the following scenario can be easily envisioned, whereby after the neutralization step, a zeolite free flow aid is added in an intermediate step, after which a binder, followed by additional zeolite, is added in the second step. Such a scenario is precisely the method claimed by applicants.

The examiner acknowledges that this scenario is merely one of many that could be envisioned by a reading of the reference. However, it is precisely this latitude with regard to process steps that the examiner notes time and again in the prior art and leads the examiner to the conclusion that there are many different ways to formulate an agglomerate and the person of skill in the art is aware that at times it may be advantageous to add all of the binder or particulate in a single batch, and at times it is better to add the ingredients in alternating steps, as presently claimed, depending on the needs of the formulator. Such processes are known in the art, as evidenced by the reference, and do not represent an unobvious difference over the prior art.

Applicants have traversed this rejection for the same reasons set forth above and the examiner's response is the same. Applicants argue repeatedly that the prior art has not recognized the unexpected and advantageous properties of their high density detergent granules, yet the examiner notes that both references relied upon result in high bulk density detergent granules which appear to be the very same as those claimed.

***Conclusion***

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles I. Boyer whose telephone number is 571 272 1311. The examiner can normally be reached on M-Th 9:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on 571 272 1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Charles I Boyer  
Primary Examiner  
Art Unit 1751